

RAUBE, P.V., red.; SELEKHOV, P.M., red.; FILIPPOVICH, P.V., red.;
KOGAN, F.L., tekhn. red.

[Food machinery industry in capitalist countries] Prodo-
vol'stvennoe mashinostroyeniye v kapitalisticheskikh stranakh.
Moskva, 1961. 335 p. (MIRA 16:8)

1. Moscow. Tsentral'nyy institut nauchno-tekhnicheskoy in-
formatsii mashinostroyeniya.

(Food machinery)

KAGANER, M.G., kand.tekhn.nauk; GAMPEL', M.G., nauchnyy red.;
FILIPPOVICH, P.V., red.; KOGAN, F.L., tekhn.red.

[Heat insulation with the utilization of vacuum] Teploizoliatsiya
s ispol'zovaniem vakuuma. Moskva, 1963. 43 p. (Moscow.
TSentral'nyi institut nauchno-tekhnicheskoi informatsii po avto-
matizatsii i mashinostroeniiu. Seriya VI: Novye materialy, no.59).
(MIRA 16:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kislородnogo
mashinostroyeniya (for Kaganer).

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25678

S/122/60/000/005/017/017
A161/A130

AUTHORS: Nemm, V. A.; Filippovich, S. A.; - Engineers

TITLE: Investigations and practical application of polyamide slide bearings
in Czechoslovakia

PERIODICAL: Vestnik mashinostroyeniya, no. 6, 1960, 72-74

TEXT: Information on bearings from a caprolactam-type polyamide called "silon" in Czechoslovakia is given. The transport research institute Výzkumný ústav dopravní in Prague conducted laboratory and service tests of silon bearings during 1954-1958. Some properties of this material are given: melting point 220°C , specific weight 1.13 g/cm^3 , tensile strength $500-700 \text{ kg/cm}^2$, elongation $270-300\%$, heat resistance - Martens scale 40-45, Vlk 160-180, linear expansion factor per 1°C $10-11 \cdot 10^{-5}$, heat conductivity $0.23 \text{ kcal/m} \cdot \text{h}^{\circ}\text{C}$, moisture absorption to saturation 9.5%, content of low-molecular compounds 5-12%. Two bearing types are recommended after tests: 1) either all-silon, or metal with thin silong coating, on metallic heat treated (or not) shaft trunnion; 2) all-metal bearing, and a silong bushing or coating on the shaft trunnion. Cast silon bushings are pulled on an arbor clamped in a lathe chuck, the free end expanded, then pulled

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Investigations and practical application ...

pulled on the shaft trunnion using a short tapered end piece. It is recommended to prevent air pockets on the trunnion by ventilation ducts in devices used for pulling bushings on trunnions, and negative allowance on the bushing (2-3 mm on a side) to make it fit tight. Sand blasting or grooves on the trunnion improve hold. Coating with silon is recommended by dusting with a УПН-4У (UPN-4U) pistol of VNIItavtogen design, produced by Barnaul'skiy apparaturno-mekhanicheskii zavod (Barnaul Mechanical Apparatus Plant), onto shafts rotating with 40 rpm and heated to 280°C. The coating depth with an allowance for final machining has to be 2.5-3 mm (final depth of less than 1.8 mm is not recommended). Silon bearings had been tested on automobile engines and locomotive parts, and it was stated that split bushings withstood 3 months, but solid unsplit worked for 5-9 months. Type 2 bearings (with dusted-on coating on trunnion) were worn only 0.2 mm (summary on bearing and trunnion) after 90-165,000 km on locomotives. Some faults were stated (weak adhesion to metal, expansion from humidity, heterogeneous layer structure, casting and assembly defects, etc.), but in general silon proved good. Best suitable steel composition for friction with silon is a) 0.12% C; 0.45% Mn; 0.29% Si; 0.019% P; 0.009% S; b) 0.18% C; 0.79% Mn; 0.25% Si; 0.031% P; 0.015% S. Mixed amorphous-crystalline structure was revealed in 2.5-3 mm layers by x-rays. It is, therefore, recommended to use heat treatment: holding for

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5-10 min in oil at 160-170°C, and improving resilience after this treatment by
2 boiling in water. Apart from bearings silicon is used for ball and roller
bearing separators, small gears (pressed with final dimensions). The Plant im.
V. I. Lenina in Plsen uses it for bearings, gages, seals, pump vanes, etc. There
are 2 figures, 2 tables and 6 Soviet-bloc references.

Card 3/3

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87886
S/114/60/000/008/010/010
EO73/E535

AUTHORS: Nemm, V. A. and Filippovich, S. A., Engineers
TITLE: Application of Polyamide Plastics in Czechoslovakia
PERIODICAL: Energomashinostroyeniye, 1960, No. 8, pp. 47-48

TEXT: The use of polyamide bearings is impeded by the absence of research and practical data on this material. From that point of view Czech experience on using bearings made of Silon is of interest, a material similar to that of "polycaprolactam" manufactured by Soviet industry.

(Abstractor's Note: "Silon" is a polycapronamide $(-\text{HN}(\text{CH}_2)_5\text{CO}-)_n$,
 $\rho = 1.14$, b.p. 205-215°C)

Tests on an Amsler machine ($p = 45 \text{ kg/cm}^2$, $v = 0.39 \text{ m/sec}$, lubrication with oil of the viscosity 5.6° E at 50°C) have shown that the friction coefficient and the wear of rubbing pairs depend to a great extent on the quality of the machined surface and on the hardness of the roller. The test data are summarized in the following table (Ref. 1):

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EO73/E535

Application of Polyamide Plastics in Czechoslovakia

	Class 7 surface			Class 10 surface		
	wear, mg/h		friction	wear, mg/h		friction
	roller	specimen	coeffic- ient	roller	specimen	coeffic- ient
Unhardened	16.6	16.2	0.07	12.8	9.2	0.03
Hardened to RC 45-48	5.8	12.0	0.05	2.4	6.4	0.03

According to work published by the Prague Scientific Research Institute for Transportation (Refs. 2 and 3), between 1954 and 1958 about 1600 Silon bearings were investigated in various locations in locomotives. It was found that ordinary thick-walled ($\delta = 5$ to 10 mm) bushings and liners had an operating period of 3 to 7 months. The so-called "reverse pair": a) jacket ($\delta = 3$ to 4 mm) made of a Silon tube pressed onto a shaft with diametral stretching by 2 to 6 mm and steel liners had a service life twice as long as

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E073/E535

Application of Polyamide Plastics in Czechoslovakia

ordinary bronze bearings; b) linings ($\delta = 1.8$ to 3 mm) of journals obtained by hot spraying of Silon powder, followed by an appropriate heat treatment in oil (Ref. 4), rubbing against a steel liner showed a total wear of the rubbing pair below 0.2 mm after a run of the locomotive of 90 to 165 thousand kilometres. The high wear of thick bushings (liners) is attributed to the low heat conductivity of the Silon and resulting easy fusibility of the surface, adhesion to the neck of the shaft, chipping off of the Silon and washing away of particles with the lubricant. Using facings with thicknesses below 1.8 mm also proved unsuitable; frequent tears and damage of the facings, due to adhesion to the basic metal of the journal, could be detected. Testing of the Silon bearings under natural conditions was mostly effected at circumferential speeds of $v \leq 1.2$ m/sec and specific pressures of $p = 100$ to 150 kg/cm² with normal lubricant supply at the beginning; after running in, the oil supply was cut down by 50% . The shaft-liner clearance was 0.1 to 0.15 mm; the metallic neck of the shaft and the liner were ground and polished. Silon liners also proved successful in Skoda motor cars (Ref. 5). The liners were in operation over long periods with Card 3/4

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specific pressures of 80 kg/cm^2 at $v = 1 \text{ m/sec}$, whereby the temperature of the circulating oil $T \leq 130^\circ\text{C}$ and after a 22 000 km run the wear was less than 0.02 mm. In addition to the above mentioned applications, Silon has been used in Czechoslovakia in the manufacture of separators, ball and roller bearings (Refs. 6 and 7). At the V. I. Lenin Works, Pilsen, Silon is extensively used as a material for seals, gears, bearings, gauges, blades of the runner wheels of pumps, blades of fans, and model turbines, etc. The cost of most Silon components is 50 to 60% below that of similar metallic ones. The Czech experience could be usefully applied in new designs of turbo-machinery, pumps, compressors, controller, reductor gear and other parts. As regards the physico-mechanical and the anti-friction properties (particularly at speeds of 0.5 to 1.2 m/sec and pressures of $p \leq 150 \text{ kg/cm}^2$), they are fully suitable for replacing metals and in many cases they have a better wear resistance. There are 1 table and 7 Czech references. (NOTE: This is virtually a complete translation).

Card 4/4

NEMM, V.A., inzh.; FILIPPOVICH, S.A., inzh.

Investigation and use of polyamide sliding bearings in Czechoslovakia. Vest.mash. 40 no.5:72-74 My '60. (MIRA 14:4)
(Czechoslovakia—Bearings (Machinery))

FILIPPOVICH, S.A., inzh.

Hydrodynamical similarity emanating from the principal equations
of Navier-Stokes. Energomashinostroenie 7 no.4:47-48 Ap '61.
(MIRA 14:7)

(Hydraulic machinery—Fluid dynamics)

NEMM, V.A.; FILIPPOVICH, S.A.

Machine for testing bushings operating under heavy loads. Zav.lab. 27
no.3:341-344 '61. (MIRA 14:3)

1. Leningradskiy metallicheskiy zavod im. Stalina.
(Testing machines)

NEMM, V.A., inzh.; FILIPPOVICH, S.A., inzh.

Using nonmetallic bearings in friction joints of motor vehicles.
Vest.mash. 41 no.10:42-44 0 '61. (MIRA 14:10)
(Nonmetallic bearings) (Motor vehicles)

FILIPPOVICH, S.A., inzh.

Accuracy of determining the efficiency of natural hydraulic
turbines in acceptance tests. Energomashinostroenie 7 no.11:44..
45 N '61. (MIRA 14:11)
(Hydraulic turbines--Testing)

S/122/63/000/002/006/012
D262/D303

AUTHOR: Filippovich, S. A., Engineer

TITLE: Conversion of characteristics of centrifugal pumps

PERIODICAL: Vestnik mashinostroyeniya, no. 2, 1963, 43-45

TEXT: The article deals with the problem of conversion of the data obtained from the scale model tests on the actual size pumps. In particular the conversion of hydraulic efficiency according to various sources is discussed and the calculation formulas presented. The problem of calculation of the reduced diameter of the impeller to obtain new lowered values for the pump discharge head and capacity, at the same speed, is also analyzed, several calculation methods submitted, and the results compared. The nearest approximation is obtained with the formula:

$$D_1 = \sqrt{\frac{H_1}{H_0} (D_0^2 - D_1^2) + D_1^2}$$

Card 1/2

Conversion of characteristics ...

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D262/D308

where D_i , D_o are respectively the reduced and initial impeller diameters. D_i is the diameter of the impeller inlet, and H_i and H_o are respectively the reduced and initial discharge heads. There are 4 figures and 1 table.

Card 2/2

S/114/63/000/001/006/007
D262/D308

AUTHOR: Filippovich, S.A., Engineer
TITLE: Application of molybdenum disulfide to the lubrica-
tion of thrust and journal bearings of water turbines
PERIODICAL: ^{Vol. 9} Energomashinostroyeniye, no. 1, 1963, 44-46

TEXT: The article reviews the experiments conducted in Czechoslovakia by SVUMT and SVUTT with various lubricants containing up to 3% by volume of MoS₂ added in the form of powder or suspension. Anti-frictional properties and stability of various compositions are investigated, and the effects of test duration on temperature of friction surfaces for various loadings, and constant or variable working conditions are established. The results of these experiments and some practical industrial applications confirmed in general the usefulness of MoS₂, especially at high temperatures (up to 550°C), in high pressure vessels, and in various mechanisms of water turbines at assembling and starting-up operations. Conclusions: More research work is needed to investigate anti-frictional and anti-scoring prop-

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Application of molybdenum ...

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D262/D308

erties of MoS_2 , and to devise methods of its application in industry.
There are 3 figures and 3 tables.

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ACCESSION NR: AP3003318

EPR/EWP(j)/EPF(c)/EWT(m)/BDS

AFFTC/ASD

Pg-4/Pc-4/

S/0191/63/000/007/0069/0073

AUTHOR: Filippovich, S. A.

68

TITLE: Effect of medium on the stability of epoxy adhesive compounds

SOURCE: Plasticheskiye massy*, no. 7, 1963, 69-73

TOPIC TAGS: ChS-Epoxy 100 resin, plastics' stability characteristics

ABSTRACT: Author gives a summary of what has been accomplished in Czechoslovakia during 1958-1961 concerning the use of epoxy resins for cementing metals. Work which was carried out by the authors cited in the references is discussed. These cited authors investigated the effect of such media as elevated temperatures, humidity, rain water, condensation chamber, salt vapors, and γ -radiation with CO⁶⁰ on the stability characteristics of the Czech ChS-Epoxy 100 resin. Results are calculated mathematically and given in a table. Discussion of results is mathematical. Curves are constructed for various relationships. Orig art. Has: 6 figures and 3 tables.

Card 1/2

FILIPPOVICH, S.A., inzh.

Effect of the unloading slots of the runner blades on the quality
of the performance of centrifugal pumps. Energomashinostroyeniye
9 no.5:42-43 My '63. (MIRA 16:7)

(Centrifugal pumps)

FILIPPOVICH, S.A., inzh.; NEMM, V.A., inzh.

Some data on research and use of diagonal hydraulic turbines.
Energomashinostroenie 9 no.8:45-48 Ag '63. (MIRA 16:8)
(Hydraulic turbines)

FILIPPOVICH, S.A., inzh.

Design of centrifugal pumps. Energomashinostroenie 9 no.9:39-42
S '63. (MIRA 16:10)

FILIPPOVICH, S.A., inzh.

Dimensionless characteristic coefficients for hydraulic machines.
Energomashinostroenie 11 no.3:47-48, 3 of cover Mr '65.

(MIRA 18:6)

FILIPPOVICH, S.A., inzh.

Some foreign hydraulic pump storage systems. Energomashstroenie
11 no.6:45-48, p.3 of cover Je '65. (MIRA 18:7)

PROCESSES AND PROPERTIES INDEX																									
1ST AND 2ND CODES													3RD AND 4TH CODES												
<p><i>ca</i></p> <p>The role of humoral stimulants in changing the reactivity of digestive glands (pancreas and salivary glands). I. S. I. Filippovich. <i>Bull. biol. med. exp. U. R. S. S. R.</i> 30-4 (July, 1934).—The vagus nerve of dogs was stimulated by means of an induction current after intravenous injection of chloral hydrate (0.05-0.15 cc. of a 10% aq. soln. per kg. of body wt.). As compared with control animals, there was a definite reduction in the pancreatic secretion with large doses of the chloral hydrate, while small doses produced a biphasic effect. After severing of the splanchnic nerve there was an increase in the concn. of org. substances and an intensification of the proteolytic digestive effect of the pancreatic juice, with an increase in secretion. After eating, administration of chloral hydrate produced a reduction in enzymic digestion which was connected with the increase in vagus secretion. II. <i>Ibid.</i> 35-8.—Elec. stimulation of the maxillary gland through the chorda tympani after injection of chloral hydrate produced characteristic changes in the salivary secretion. Small doses (0.05 g. per kg. of body wt.) produced an initial increase in salivation which was followed by a repression of secretion. An increase in the content of org. salivary substances was also observed. Expts. with acetylcholine gave corresponding results.</p> <p>IV. The influence of mental excitement on the reactivity of the parotid gland. <i>Ibid.</i> 8, 248-50 (1939).—Expts. were performed on 2 dogs with permanent parotid fistula. The amt. and the org. and inorg. constituents of the secretion were recorded every 15 min. after the feeding of 30 g. of biscuit. Showing the dogs a cat increased the amt. of secretion only during the first 20 min.; later there was an increase in org. substances, while the amt. and content in inorg. substances remained unchanged as compared with the control period. During the days after the emotional excitation the amt. of salivary secretion remained normal. The inorg. constituents were reduced, the org. increased, and the deviation of the individual values was greater. The changes are explained as due to the action of adrenaline. A structural change in the cells of the glands is assumed to be the cause of the long aftereffect. Through <i>Chem. Zentr.</i> 1940, I, 76, 1366. M. G. Moore</p>																									
<p>ASH-1-A METALLURGICAL LITERATURE CLASSIFICATION</p> <p>3RD AND 4TH CODES</p> <p>3RD AND 4TH CODES</p>																									

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<div style="display: flex; justify-content: space-between;"> ca 11F </div> <p>The role of humoral stimulants in changing the reactivity of digestive glands (parotid gland and pancreas). III. S. I. Filippovich. <i>Bull. biol. med. exp. U. R. S. S. 6, 181-187 (1966); Chem. Zentr. 1966, 1, 3287; cf. C. A. 33, 66447d, 66448d.</i>—Intravenous injections of adrenaline in varying concns. (0.01-0.1 mg./kg. wt.) caused anomalous behavior of the salivary secretion and produced changes in the chem. compo. of the saliva after stimulation of the chorda tympani. Analogous expts. carried out after extirpation of the upper cervical ganglion and expts. on dogs with permanent parotid fistula (after alimentary stimulation) showed the humoral factors to have a direct influence on the neuroglandular app. M. O. Moore</p>																									
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Changes of salivation under the influence of reduced barometric pressure. S. I. Eliashovich. *Dokl. biol. med. expil. U. R. S. S. 9, 334-40 (1940) (in English).* - Exposure of dogs with parathyroid fistulas to altitudes of 4000 MMS in a "baro-chamber" for 16 hrs. caused a small but distinct decrease in salivary secretion which continued for 2-7 days, and which in some cases was followed by an increase in secretion. Org. solid residue decreased in response to the 1st stimulation (biscuit powder) but increased sharply with later stimuli. Considerable irregular fluctuation of inorg. solid residue was observed. The administration *per os* of dil. HCl immediately after exposure causes a marked decrease in secretion with a strong increase in org. solid residue. In human subjects, decreased pressure caused an increase in salivary secretion. S. A. Korjala

LEPESHINSKAYA, O.B., professor; USIYEVICH, M.A., professor; ASRATYAN, B.A., professor; SMIRNOV, A.I., professor; FILIPPOVICH, S.I., doktor meditsinskikh nauk; VOLOKHOV, A.A., professor; FILIMONOV, I.B., professor; SNIYAKIN, P.G., professor; CHERNIGOVSKIY, V.N., professor; SPERANSKIY, A.D., akademik; DOLIN, A.O., doktor meditsinskikh nauk; KOTLYAREVSKIY, L.I., professor; NEGOVSKIY, V.A., professor; KASATKIN, N.I., professor; STEL'CHUK, I.V., professor; YEGOROV, B.G., professor; BAKULEV, A.N., professor; SMIRNOV, L.I., professor; USPENSKIY, V.N., redaktor; PETROV, S.P., redaktor.

[Teachings of I.P.Pavlov in theoretical and practical medicine]
 Uchenie I.P.Pavlova v teoreticheskoi i prakticheskoi meditsine. Vol.2.
 Moskva, Izd-vo Ministerstvo zdoravookhraneniia SSSR, 1953. 611 p.
 (MLRA 7:3)

1. Deystvitel'nyy chlen AMN SSSR (for Lepeshinskaya, Chernigovskiy and Bakulev).
2. Chlen-korrespondent Akademii nauk SSSR (for Asratyan).
3. Chlen-korrespondent AMN SSSR (for Smirnov, Filimonov, Yegorov and L.I.Smironov).
4. Moscow. Tsentral'nyy institut usovershenstvovaniya vrachey. (Pavlov, Ivan Petrovich, 1849-1936) (Nervous system) (Physiology)

FILIPPOVICH, S.I.

Ivan Petrovich Razenkov; obituary. Zhur.vys.nerv.defiat. 4 no.6:
930-931 N-D '54. (MIRA 8:7)
(OBITUARIES,
Razenkov, Ivan P.)

FILIPPOVICH, S.I.

Corticovisceral relationships in the development and healing
of experimental gastric ulcer in dogs. Biul. eksp. biol. i med.
37 no. 5:17-21 My '54. (MLRA 7:7)

1. Iz laboratorii fiziologii i patologii pishchevareniya (sav.
deystvitel'nyy chlen AMN SSSR prof. I.P. Razenkov) Instituta
fiziologii (dir. deystvitel'nyy chlen AMN SSSR prof. V.N.
Chernigovskiy) AMN SSSR.

(PEPTIC ULCER, experimental,

*conditioned reflex salivary secretion & unconditioned
gastric secretion in dogs)

(REFLEX, CONDITIONED,

*conditioned salivation & unconditioned gastric secretion
in exper. peptic ulcer)

(GASTRIC JUICE,

*secretion, unconditioned, & conditioned salivation in
exper. peptic ulcer)

EXCERPTA MEDICA Sec. 2 Vol. 11/4 Physico-biochem-pharm Apr 58
 Filippovich, S.I.

1619. PHYSIOLOGICAL CHARACTERISTICS OF FASTING GASTRIC JUICE SECRETION AND OF SOME EXPERIMENTALLY PRODUCED PATHOLOGICAL PROCESSES IN DOGS (Russian text) - Filippovich S.I. Inst. of Normal and Pathol. Physiol., USSR Acad. of Med. Scis, Moscow - BIULL. EKSPER. BIOL. I MED. 1956, 42/12 (17-21) Tables 2 illus. 3

The mode of juice secretion was studied in dogs with a stomach fistula and an isolated stomach (after I. P. Pavlov and Heidenhain) and with experimental gastric ulcer developing after administration of cinchophen in doses of 0.1-0.2 g. per kg., and also in the presence of a sterile abscess. Two series of experiments were carried out on 8 dogs. In experimental cinchophen-ulceration a continuous secretion from the fasting stomach was noted; the juice was characterized by a high degree of acidity and a strong digestive activity. Daily (from 7-12 days on) introduction of 0.5 g. of NaBr into the stomach through the fistula markedly lowered the secretion, while introduction of atropine (from 7-10 days on) did not produce such a definite, sustained and long-lasting lowering of the secretion. It was found that the action of bromide was not a local one, since it was effected only when para-sympathetic innervation was preserved. With sterile abscesses produced by subcutaneous injection of turpentine, there was also secretion of juice in the fasting stomach observed during the process of the abscess ripening, but this juice was characterized by a rather low degree of acidity and feeble power of digestion. The juice secretion of the fasting stomach stopped in the period of resolution of the abscess. NaBr did not show any influence on the amount of secretion in these experiments. The author recommends the experimental and clinical i.v. and s.c. administration of various substances for the purpose of analysis of the digestive capabilities of the gastric glands, and for elucidating the 2nd phase of gastric secretion in particular.

References 8.

Sbitneva - Moscow (S)

FILIPPOVICH, S.I.; MATROSOVA, Ye.M.

Problems in the physiology of digestion at the 20th Congress of
Physiologists held in Brussels on July 30 - August 4, 1956; brief
review. *Vop.pit.* 16 no.2:89-92 Mr-Apr '57. (MLRA 10:10)
(DIGESTION)

FILIPPOVICH, S.I.; MATROSOVA, Ye.M.

Problems in the physiology of digestion at the Twentieth International
Congress of Physiologists. Fiziol.shur. 43 no.3:292-297 Mr '57.
(DIGESTION) (MIRA 10:9)

MALKIMAN, I.V., MURTKANTOV, V.A., FILIPPOVICH, S.I. (Moskva)

Significance of I.P. Razenkov's investigations in the field of
digestive physiology and pathology and certain results of their
further development; 70th anniversary of his birth. Fiziol.
zhur. 44 no.11:1091-1094 N'58 (MIRA 11:12)

(GASTROENTEROLOGY,

contributions of I.P. Razenkov (Rus))

(BIOGRAPHIES,

Razenkov, I.P., (Rus))

EXCERPTA MEDICA Sec 2 Vol 12/7 Physiology July 59

2896. COMPENSATION OF FUNCTIONS OF THE DIGESTIVE SYSTEM AFTER
PARTIAL RESECTION OF THE STOMACH IN DOGS (Russian text) -

Filippovich S.I. Inst. of Norm. and Pathol. Physiol., USSR Acad.
of Med. Scis, Moscow - BYULL. EKSPER. BIOL. I MED. 1958, 45/9 (3-8)

- Results of examination of the compensatory processes and the function of the digestive system after partial (2/3 and 4/5) resection of the stomach in dogs are reported. These data were obtained in experiments on 28 dogs, observed up to 2 yr. after the operation. The secretory function and the enzyme secretion of the stomach pancreas and small intestine, as well as the motor function and absorptive property of the small intestine, were studied. Experiments demonstrated that compensation of the functions of the digestive system takes place mainly by way of reconstruction of the secretory motor function of the small intestine. Certain data concerning the mechanisms of compensatory reactions were also obtained. The role of the extramural intestinal innervation and the functional condition of the food centre in compensatory processes was studied in particular. (11, 9*)

FILIPPOVICH, S.I.

Compensatory function of the digestive system following gastric resection in dogs.[with summary in English]. Biul.eksp.biol. i med. 46 no.9:3-8 S'58 (MIRA 11:11)

1. Iz laboratorii fiziologii i patologii pishchevareniya (zav. - prof. S.I. Filippovich) Instituta normal'noy i patologicheskoy fiziologii (dir. - deystvitel'nyy chlen V.N. Chernigovskiy) AMN SSSR Moskva. Predstavlena deystvitel'nyy chlenom AMN SSSR V.N. Chernigovskim.

(GASTRECTOMY, exper.

postop. compensatory funct. (Rus))

FILIPPOVICH, S.I.; MUZYKANTOV, V.A.

Conference on the physiology and pathology of digestion, held in
memory of I.P. Razenkov. Vop.pit. 18 no.5:90-94 S-O '59.

(MIRA 13:1)

(DIGESTIVE ORGANS)

PARIN, V.V., red.; FILIPPOVICH, S.I., prof., red.; ZAMYCHKINA, K.S., red.;
MALKIMAN, I.V., red.; SOVETOV, A.N., red.; BEL'CHIKOVA, Yu.S.,
tekhm. red.

[Activity of the digestive system and its regulation under normal
and pathological conditions] Deiatel'nost' pishchevaritel'noi siste-
my i ee regulatsiia v norme i patologii. Pod obshehei red. V.V.Pari-
na. Moskva, Medgiz, 1961. 259 p. (MIRA 14:11)

1. Akademiya meditsinskikh nauk SSSR, Moscow. Institut normal'noy i
patologicheskoy fiziologii. 2. Deystvitel'nyy chlen AMN SSSR (for
Parin). 3. Laboratoriya fiziologii i patologii pishchevareniya Insti-
tuta normal'noy i patologicheskoy fiziologii AMN SSSR, Moskva (for
Zamychkina).

(DIGESTION) (DIGESTIVE ORGANS—SURGERY) (STOMACH—ULCERS)

FILIPPOVICH, Sof'ya Iosifovna, prof.; BYKOV, V.D., red.; ROMANOVA,
Z.A., tekhn. red.

[Adaptive processes in disorders of the activity of the
digestive system] O prispobitel'nykh protsessakh pri na-
rusheniakh deiatel'nosti pishchevaritel'noi sistemy.
Moskva, Medgiz, 1962. 166 p. (MIRA 15:10)

(ADAPTATION (BIOLOGY))
(DIGESTIVE ORGANS—DISEASES)

FILIPPOVICH, S.I.; AMIROV, N.Sh.; VOLKOVA, T.V.; ZAMYCHKINA, K.S.;
MALKIMAN, I.V.; MARTSEVICH, M.S.; NILOVA, N.A.; GOLUBEV, L.I., red.;
BUKOVSKAYA, N.A., tekhn. red.

[Compensatory processes in the digestive system following resection of the stomach and the small intestine; experimental studies] Kompensatornye protsessy v pishchevaritel'noi sisteme posle rezektsii zheludka i tonkogo kishechnika; eksperimental'nye issledovaniia. Moskva, Medgiz, 1963. 290 p. (MIRA 17:3)

*

FILIPPOVICH, S.I. (Moskva)

Some principles of the correlation of the structure and function
in disorders of the entirety of the digestive system. Vest. AMN
SSSR 20 no.1:59-62 '65. (MIRA 18:4)

FILIPPOVICH, S. M.

KINDYAKOV, V. I.; BAYADINOV, A. N.; FILIPPOVICH, S. M.; NIKONOVA, O. S.

Foot-and-Mouth Disease

Mutability of the virus of hoof and mouth disease. Veterinariia, 29, No. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

FILIPPOVICH, S. M. Cand Vet Sci -- (diss) "Studies ^{on} the ~~of~~ the
Variability of the Typical Properties of the ~~Virus of Stomatitis~~
~~viruses.~~ ^{Foot and Mouth Disease}
~~Aphthosa.~~ Alma-Ata, 1957. 11 pp 20 cm. (Min of Agriculture USSR,
Alma-Ata Zooveterinary Inst), (KL, 26-57, 111)

USSR/Virology - The Virus of Foot-and-Mouth Disease.

E.

Abs Jour : Ref Zhur - Biol., No 19, 1958, 85835

Author : Filippovich, S.M.

Inst : Institute of Veterinary Medicine of the Kazakh Affiliate
of VASKhNIL

Title : The Use of the Complement Fixation Test in Typing Foot-
and-Mouth Disease Virus.

Orig Pub : Tr. In-ta Vet. Kazakhsk. Fil. VASKhNIL, 1957, Vol. 8,
85-88.

Abstract : No abstract.

Card 1/1

- 12 -

USSR / Virology. Human and Animal Viruses. FMD Virus. E

Abs Jour: Ref Zhur-Biol., No 2, 1959, 5303.

Author : Filippovich, S. M.

Inst : Not given.

Title : Studies on Variability of Type Properties of Foot-and-Mouth Disease Virus.

Orig Pub: Veterinariya, 1957, ³⁴ No 4, 45-59.

Abstract: Tests were carried out in which guinea pigs and cattle were infected with the same type (in different experiments with different types) of foot-and-mouth disease virus. After repeated inoculations, a virus with an antigenic structure of a different type was isolated from the animals. The author considers that in repeated inocula-

Incl. Vet. Med, Kazakh Affil VASKhNIL

Card 1/2

13

Virology. Human and Animal Viruses. FMD Virus. E
Abs Jour: Ref Zhur-Biol., No 2, 1959, 5303.
Abstract: Inoculations with the same strain of foot-and-mouth disease virus in a single immune animal organism, several strains of virus with different antigenic properties can be obtained. -- N. V. Kozlyakov.

Card 2/2

FISHER, A.; DRYAZHZHININ, A.; DUDAKOVA, K.; FILIPPOVICH, V.

Readers' letters. Muk.-elev.prom. 29 no.1:28 Ja '63.

(MIRA 16:4)

1. Glavnyy inzhener Omskogo oblastnogo mel'nichnogo tresta (for Fisher). 2. Direktor Biyskoy mashinostpyatel'noy stantsii (for Dryazhzhinin). 3. Zaveduyushchaya otделom ekonomicheskikh issledovaniy Biyskoy mashinostpyatel'noy stantsii (for Dudakova). 4. Petropavlovskiy elevator Severo-Kazakhstanskoy oblasti (for Filippovich).

(Grain)

FILIPPOVICH, V.A., kand.med.nauk (Moskovskaya oblast')

Comparative evaluation of the effectiveness of some methods in
the surgical treatment of lacrimation in the pathology of the
puncta lacrimlia. Vest.oft. no.3:50-51 '61. (MIRA 14:9)
(LACRIMAL ORGANS—SURGERY)

FILIPPOVICH, V.I., nauchnyy sotr.; RUBANOVA, L., red.; GRODSKAYA, R.,
tekhn. red.

[Sports gymnastics; program for the sports sections of
physical education and training groups in eight-year and
secondary schools] Sportivnaia gimnastika; programma dlia
sportivnykh seksii kollektivov fizicheskoi kul'tury vos'-
miletnikh i srednikh shkol. Moskva, Izd-vo "Fizkul'tura i
sport," 1962. 83 p. (MIRA 17:2)

1. Soyuz sportivnykh obshchestv i organizatsiy SSSR. Tsentral'-
nyy sovet. 2. Nauchno-issledovatel'skiy institut fizicheskogo
vospitaniya i shkol'noy gigiyeny Akademii pedagogicheskikh nauk
RSFSR (for Filippovich).

1 (X) *KLIPPEL V.N.*
ZHUZE, V.P., kandidat fiziko-matematicheskikh nauk, redaktor; VERE -
MEYENKO, G.D., bibliograf; GUSENKOVA, Ye.I., bibliograf;
FILIPPOVICH, V.N., redaktor; ABONS, R.A., tekhnicheskiiy redaktor.

[Scientific literature on semiconductors; bibliography for 1920-
1952] Nauchnaya literatura po poluprovodnikam; bibliografiya 1920-
1952. Moskva, 1955. 631 p. (MLRA 8:12)

1. Akademiya nauk SSSR. Institut poluprovodnikov, Leningrad.
(Bibliography--Semiconductors)

FILIPOVICH, V.N.

On the theory of X-ray scattering by oriented polymers
and other systems with axial macroscopic isotropy.
Fiz. tver. tela 4 no.11:3244-3253 N '62. (MIRA 15:12)

1. Institut khimii silikatov imeni I.V. Grebenshchikova
AN SSSR, Leningrad.
(X rays--Scattering) (Systems (Chemistry))

FILIPPOVICH, V. N.

"On connection between the structures of melt, glass and products of its crystallization."

report submitted for 4th All-Union Conf on Structure of Glass, Leningrad,
16-21 Mar 64.

KALININA, A. M.; FILIPPOVICH, V. N.

"Peculiarities of crystallization of some lithium silicate and lithium aluminosilicate glasses."

report submitted for 4th All-Union Conf on Structure of Glass, Leningrad, 16-21 May 64.

L 17730-6

EWA(b)/EWT(m)/BLS Pa-4 RM

ACCESSION NR: AP3004285

S/0079/63/033/007/2130/2133⁵⁹
⁵⁸

AUTHORS: Filippovich, Ye. I.; Luzgina, V. N.; Yevstigneyeva, R. P.;
Preobrazhenskiy, N. A.

TITLE: Studies in the dipyrromethene series. 5. Synthesis of
asymmetric dipyrromethenes and dipyrromethanes 1

SOURCE: Zhurnal obshchey khimii, v. 33, no. 7, 1963, 2130-2133

TOPIC TAGS: dipyrromethene, dipyrromethane, pheoporphyrin,
chlorophyll, pyrrole, Dieckmann reaction, isonitrosomalonic ester

ABSTRACT: This a further study of intermediates for the synthesis of pheoporphyrins related to chlorophyll. Three asymmetric dipyrromethenes substituted with methyl, acetyl, carbethoxy, and propionic acid side-chains were prepared by the acid-catalyzed condensation of the appropriate pyrrole aldehyde and 2,5-unsubstituted pyrrole. The use of a halomethylpyrrole instead of the aldehyde gave the corresponding dipyrromethane. The feasibility of using meso-substituted carbethoxymethyl compounds to prepare the pheoporphyrin system was demonstrated by the Dieckmann cyclization.

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L 17730-63

ACCESSION NR: AP3004285

The condensation of isonitrosomalonic ester and the sodium salt of hydroxymethylenesacetoacetic ester with zinc dust provided a simplified synthesis of 3-methyl-2,4-dicarbethoxypyrrole in 30.8% yield. Orig. art. has: no graphics.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. V. M. Lomonosova (Moscow Institute for Fine Chemical Technology)

SUBMITTED: 29May62

DATE ACQ: 15Aug63 ENCL: 00

SUB CODE: CH

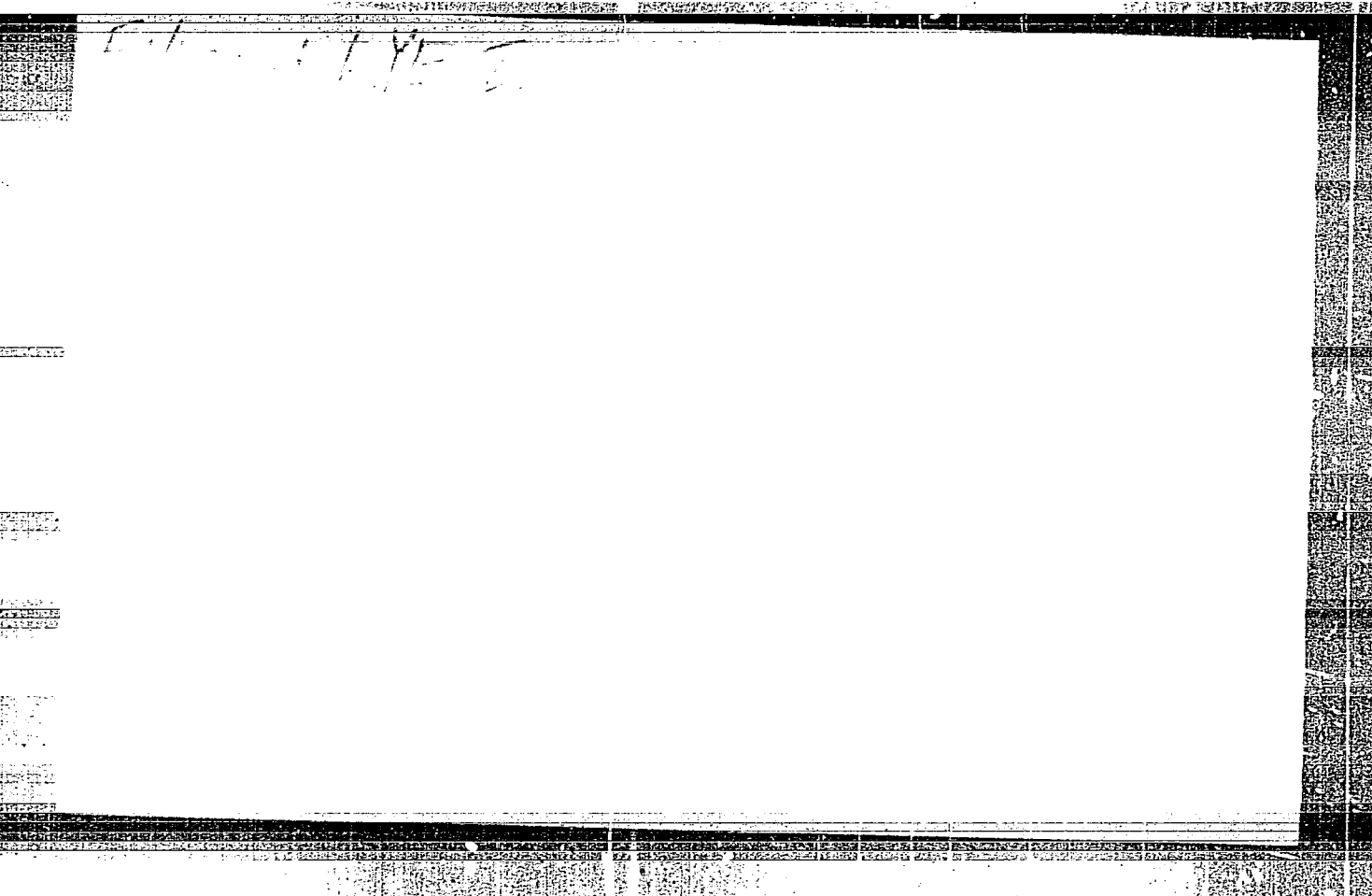
NO REF SOV: 001 OTHER: 007

Card

2/2

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413120020-8



APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413120020-8"

AUTHOR: FILIPPOVICH, Ye..I. 41-1-9/15
 TITLE: Structure of the Divergent Integrals of the S-Matrix in
 α - Representation (Struktura raskhodyashchikhsya integralov
 S-matrity v α - predstavlenii)
 PERIODICAL: Ukrainskiy Matematicheskiy Zhurnal, 1958, Vol.10, Nr 1, pp.84-88
 (USSR)

ABSTRACT: The author investigates a problem set up by the Academician
 N.N. Bogolyubov which starts from a publication of Bogolyubov
 and Parasyuk (see Ref.1). The author considers the inte-
 gral

$$I = \int_0^{\infty} \prod_{l=1}^L d\alpha_l I_M(\alpha_l) \int_{-\infty}^{\infty} d^4 p_1 z_1(p_1) \times \exp \{ i\alpha_1 (p_1^2 - m_1^2 + i\epsilon) \} \times \\ \times \Pi S \left(k_s + \sum_{l=1}^L p_l l_1^5 \right)$$

It is shown how to carry out an explicit integration with
 respect to p_1 . The structure of the remaining integrals in
 terms of the variables α_l is then investigated. 2 Soviet
 references are quoted.

Card 1/2

Structure of the Divergent Integrals of the S-Matrix in
 ω -Representation

41-1-9/15

ASSOCIATION: Kiyev State University (Kiyevskiy gosudarstvennyy universitet)

SUBMITTED: 10 October 1957

AVAILABLE: Library of Congress

1. Integral equations-Theory

Card 2/2

AUTHOR: Filippovich, Y.I. (Kiyev) SOV/41-10-2-10/13
TITLE: On the Application of the Method of Riesz in Quantum Field
Theory (O primenenii metoda Rissa v kvantovoy teorii polya)
PERIODICAL: Ukrainskiy matematicheskiy zhurnal, 1958, Vol 10, Nr 2, pp 223-228
(USSR)
ABSTRACT: For the treatment of the diverging integrals of quantum theory
the author proposes a method which combines the method of Riesz
with set-ups of Hadamard. The method is not more profitable
than well-known older methods, but it seems to be more com-
plicated.
There are 6 references, 4 of which are Soviet, 1 Polish, and
1 French.
ASSOCIATION: Kiyevskiy gosudarstvennyy universitet (Kiyev State University)
1. Physics 2. Mathematics

Card 1/1

FILIPPOVICH, Ye. I.: Master Phys-Math Sci (diss) -- "The use of the methods of ~~Riss and Adamar~~ in constructing derivatives of causal functions in the quantum field theory". Kiev, 1959. 7 pp (Acad Sci Ukr SSR, Inst of Math), 150 copies (KL, No 10, 1959, 123)

MIROSHNICHENKO, L.D.; FILIPPOVICH, Ye.L.; YEVSTIGNEYEVA, R.P.; PREDERAZHEN-
SKIY, N.A.

Prototropic rearrangement in the dipyrromethene series. Dokl. AN
SSSR 134 no.5:1100-1103 O '60. (MIRA 13:10)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V.
Lomonosova. Predstavleno akademikom A.N. Nesmeyanovym.
(Methene)

FILIPPOVICH, Ye.I.; YEVSTIGNEYEVA, R.P.; PREOBRAZHENSKIY, N.A.

Synthetic studies in the dipyrromethene series. Zhur.ob.khim. 30
no.10:3253-3257 0 '61. (MIRA 14:4)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii.
(Dipyrromethene)

FILIPPOVICH, Ye.I.; YEVSTIGNEYEVA, R.P.; PREOBRAZHENSKIY, N.A.

Dipyrrolylmethene series. Part 3: Synthesis of meso-substituted
dipyrrolylmethenes. Zhur.ob.khim. 31 no.9:2968-2972 S '61.
(MIRA 14:9)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V.
Lomonosova.

(Methene)

MIROSHNICHENKO, L.D.; YEVSTIGNEYEVA, R.P.; FILIPPOVICH, Ye.I.;
PREOBRAZHENSKIY, N.A.

Dipyrrolylmethene series. Part 5: Infrared absorption spectra of
meso-substituted dipyrrolylmethenes. Zhur.ob.khim. 31
no.9:2975-2983 S '61. (MIRA 14:9)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V.
Lomonosova.

(Methene--Spectra)

35080

S/704/61/000/002/001/006
D201/D302

16.6800 (1250, 1327, 1329)

AUTHOR: Filippovich, Ye.I., Candidate of Physico-Mathematical Sciences

TITLE: Application of the Bernouilli method in electronic computer calculations

SOURCE: Ukraine. Gosudarstvennaya planovaya komissiya. Institut avtomatiki. Avtomatizatsiya i priborostroyeniye; sbornik nauchnykh trudov, no. 2, Kiev, 1961, 25-30

TEXT: The author suggests a method of determining the roots of algebraic and transcendental equations based on the Bernouilli method. In contrast to the Lobachevskiy and Bernouilli methods, the method proposed avoids the need to evaluate rapidly increasing exponential expressions. The method is based on the following theorem: Let $f(z)$ be a function analytical within a certain region Ω of zero, containing a single-valued real root λ and let inside the Ω Eq. (1)

$$f(z) = \sum_{s=0}^{\infty} f_s z^s$$

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S/704/61/000/002/001/006
D201/D302

Application of the ...

Then Eq. (2) $\lambda^{-1} \equiv \lim_{p \rightarrow \infty} g_0^{(p)}$

where g_0^p is found by recurrent for-

mulae (3) $g_s^p = \frac{g_{s+1}^{(p-1)}}{g_0^{(p-1)}} - \frac{f_{s+1}}{f_0}$; $p \geq 1$. and $g_s^{(0)}$ - the coefficient of

the series (4) $g(z) = \sum_{s=0}^{\infty} g_s z^s$ of an arbitrary analytical in the

region Ω function $g(z)$ such that Eq.(5), $\lim_{z \rightarrow \lambda} \frac{f(z)}{g(z)} = 0$. This theorem

makes it possible to find real roots. The complex roots are determined from $g_s^{(p)}$ when the inequality (22)

$$(g_0^{(p)} \Delta_{(p+1)}^2)^2 + 4g_0^{(p)} \Delta_{p+1} (\Delta_{(p)})^2 < 0$$

where Eq.(23) $\Delta_p^2 + 1 = \Delta_{p+1} - \Delta_p$ is satisfied. It is further shown

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Application of the ...

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D201/D302

that in the process of evaluating roots of equation $f(z) = 0$ from the values of $g_s(p)$, the latter remain finite. Thus the process of computation of $g_s(p)$, while retaining the advantages of the Bernouilli method, may be successfully solved by a digital computer with a properly chosen scale. There is 1 non-Soviet-bloc reference.

X

Card 3/3

42780
S/194/62/000/011/014/062
D201/D308

16.8000

AUTHOR:

Filippovich, Ye. I.

TITLE:

Certain problems of statistical dynamics of automatic control systems

PERIODICAL:

Referativnyy zhurnal, Avtomatika i radioelektronika, no. 11, 1962, 43, abstract 11-2-58p (Sb. nauch. tr. In-t avtomatiki gosplana UkrSSR, 1961, no. 2, 31-41)

TEXT: The author considers the problem of finding the optimum transfer function of the linear system $k(t)$, with the control signal $y(t) = g(t) + m(t)$ and the disturbance $n(t)$ applied to the input, where $m(t)$ and $n(t)$ are stationary random functions and $g(t)$ - a given nonrandom function. The criterion of optimality is the minimum of the r.m.s. error. In addition

$$x(t) = \hat{H}y(t) = \int_{-\infty}^{\infty} H(t - \tau)y(\tau)d\tau \quad (1)$$

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APPROVED FOR RELEASE: 06/13/2000

S/194/62/000/011/014/062
D201/D308

Certain problems of ...

where $x(t)$ - the output signal; \hat{H} - a given linear operator of the transformation of $y(t)$, $H(t - \tau)$ is the kernel of this operator. In the literature this problem is solved for the case when $g(t)$ and the Fourier transform $H(\omega)$ of the kernel $H(t - \tau)$ are polynomials in t and ω . The author gives a solution for arbitrary functions $g(t)$ and $H(t)$, whose Fourier transforms are either ordinary or generalized. The expression for $k(\tau)$ is derived from (1) and has a constant A ; the value of which for the optimal system is found from the condition of minimum r.m.s. error. A concrete example of calculating the optimal transfer function is given. 1 figure. 5 references. [Abstracter's note: Complete translation.]

Card 2/2

FILIPPOVICH, Ye.I.; LUZGINA, V.N.; YEVSTIGNEYEVA, R.P.; PREOBRAZHENSKIY, N.A.

Dipyrromethenes. Part 5: Synthesis of asymmetric dipyrromethenes and dipyrromethanes. Zhur.ob.khim. 33 no.7:2130-2133 J1 '63.
(MIRA 16:8)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni V.M.Lomonosova.

(Pyrrole) (Porphyrins)

1. Simplified procedure for setting up problems in electronic computers

2. 00. Tekhn. kibernetika, Mifye. 1964-1965, No. 1, p. 10.

3. Procedure is proposed for assembly

ATTENTION NR: AR5012994

equations, as a result of which the selection of suitable values for
the constants becomes cumbersome. In accordance with the proposed
scheme for setting up the equations, in those cases when nonlinear elements such as multiplication and division appear in
the analog solution. G. Raskutina.

L 1856-66

ACCESSION NR: AR5009083

UR/0271/65/000/003/B069/B069
681.142:001

26
B

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika.
Svodnyy tom, Abs. 3B438

AUTHOR: Filippovich, Ye. I.

TITLE: Simplified method for programing problems on analog computers

CITED SOURCE: Sb. Tekhn. kibernetika, Kiyev, Gostekhizdat, USSR, 1963, 91-96

TOPIC TAGS: analog computer, analog computer programing

TRANSLATION: A method is suggested for composing the block diagram of programing and for determining the transmission factor, which considerably facilitates the solution of higher-order differential equations on analog computers. A fundamental block diagram corresponding to the initial set of equations has a number of elements equal to the number of terms in the right-hand member of the set of equations; the transmission factor is equal to the coefficient of the set. From this block diagram, a programing scheme is derived whose coefficients are

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ACCESSION NR: AR5009083

determined from the fundamental-diagram coefficients according to simple rules. These units are used as elements of the fundamental diagram: Σ -unit yielding a sum of inputs, p^k — a k-order derivative of the input sum; p^{-k} — k-integral of the input sum; [Translator's note: The Russian original is not clear.] also various nonlinear units which ensure the nonlinear transformation of the input. The composition of the fundamental diagram is illustrated by examples. Conversion of the fundamental diagram into a programing block diagram is as follows: each p^k unit is recorded as a sequential chain of n integrals, and the input of each p^k unit is transposed from the output of the corresponding p^{-n} unit to the output of the integrator which yields the desired derivative. The known rule of signs for adders and integrators is observed. A programing block diagram is presented, and the rules for determining the transmission factor and scales are formulated. An example illustrates the use of these rules. Application features of the above method are given. The method can also be used when multiplication and division-type nonlinearities or variable coefficients are used for the analog solution. Figs. 3.

SUB CODE: DP

ENCL: 00

Card 2/2

L 1265-66

ACCESSION NR: AR5008453

UR /0271/65/000/002/B009/B009

528.5:681.142.32.001

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika.
Svodnyy tom, Abs. 2B50

AUTHOR: Filippovich, Ye. I.

TITLE: Methods of calculation suitable for digital computers

CITED SOURCE: Sb. Tekhn. kibernetika. Kiyev, Gostekhizdat USSR, 1963,
144-198

TOPIC TAGS: computation method, digital computer / Ural-1 computer

TRANSLATION: The rapid development of computers and their adoption for engineering calculations have necessitated the development of numerical methods that meet the requirements of a simple computation scheme, small capacity of intermediate storage, etc. Solutions of several problems programmed for the "Ural-1" computer and using only its internal storage are suggested. For solving linear equations, a method is suggested which permits computing, on the "Ural-1," the systems up to the 42nd order for floating-point operations and up to

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ACCESSION NR: AR5008453

the 53rd order for fixed-point operations. A new method for matrix inversion permits obtaining inverse matrices without additional inversion of triangular matrices, which results in a saving in computation time. Three computation schemes are suggested for solving the entire problem of eigen-values; the choice of the scheme depends on the particular problem. The computing methods for solving higher-order algebraic equations permit computing, on the "Ural-1" computer, real and complex roots of equations of practically any order (up to the 94th order in the first method, and up to the 180th order in the second). Also, two simple algorithms are suggested which permit obtaining the solution of linear inequality sets in a finite number of steps. A geometrical interpretation of the algorithm operating on the method of eliminating the redundant solutions is given. Bibl. 16.

SUB CODE: DP, MA

ENCL: 00

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Card 2/2.

L 3944-66 EWT(d)/FSS-2/EEG(k)-2/EWA(c) IJP(c) BC

ACCESSION NR: AR5014346

UR/0271/65/000/005/A016/A016
621.398.001:621.391.13

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika. Svodnyy tom, Abs. 5A112

26
B

AUTHOR: Filippovich, Ye. I.; Il'chenko, V. I.; Skirta, B. K.; Zyuzin-Zinchenko, A. A.

TITLE: Average number of peaks in a remote-control relay system caused by random noise

CITED SOURCE: Sb. Ustroystva i elementy prom. telemekhan. Kiyev, 1964, 29-37

TOPIC TAGS: telemechanical system, remote control 9, 44

TRANSLATION: The noise immunity is calculated for a frequency-type remote-control receiver which comprises a narrow band filter, a detector, and a relay. Formulas are developed for the average number of peaks of the envelope and for the time of the closed state of the relay contacts, in the case of an input LC filter and for a rectangular-attenuation-characteristic filter. An experimental hookup used for verifying the theory is described. The experimental curves show that the calculations correctly describe the physical processes transpiring in the system.

SUB CODE: IE
Card 1/1 09

ENCL: 00

FILIPPOVICH, Ye.I.

Calculation of steady-state conditions of ventilation systems.
Vych. mat. [Kiev] no. 1:3-19 '65 (MIRA 19:2)

L'VOVA, S.D.; YEVSTIGNEYEVA, R.P.; LAVROVA, L.N.; FILIPPOVICH, Ye.I.;
PREOBRAZHENSKIY, N.A.

Claisen condensation of α -methyllevulinic acid esters. Zhur.
org. khim. 1 no.9:1560-1563 S '65. (MIRA 18:12)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
M.V. Lomonosova. Submitted July 17, 1964.

ACC NR: AT7000903

SOURCE CODE: UR/0000/66/000/000/0065/0072

AUTHOR: Filippovich, Ye. I.

ORG: none

TITLE: On solving problems of nonlinear programming

SOURCE: AN SSSR. Sibirskoye otdeleniye. Institut matematiki. Matematicheskiye modeli i metody optimal'nogo planirovaniya (Mathematical models and methods of optimal planning), Novosibirsk, Izd-vo Nauka, 1966, 65-72

TOPIC TAGS: nonlinear programming, linear programming, algorithm, electronic computer, mathematic space, iteration, probability

ABSTRACT: This paper contains a discussion of a method for reducing problems of nonlinear programming to seeking stationary points of a function of many variables in an unbounded domain. The transport problem is analyzed in particular. A ray $l(t)$ with the coordinates

$$l_j(t) = \xi_j + t(u_j - \xi_j); j = \overline{1, n},$$

which joins points ξ and u , is examined, where ξ is any point belonging to $G(x; n)$, and $u = (u_1, u_2, \dots, u_n)$ is any point in space X . The new function $\Phi(u)$ is determined by the equation

$$\Phi(u) = \max_{\{t | l(t) \in G(x; n)\}} F(l(t));$$

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ACC NR: AT7000903

where the maximum is taken along the ray $\rho(f)$ with respect to values of t for which $\rho(t) \in G(x; n)$. The functions in question must be unimodal to obtain a global extreme. In the case of nonunimodal functions, the method permits local extremes to be found. The algorithm for finding a point $\zeta \in G(x; n)$ is described, and problems of linear programming are also discussed. Orig. art. has: 51 formulas and 1 diagram.

SUB CODE: 12/ SUBM DATE: 12Apr66/ ORIG REF: 009/ OTH REF: 006

Card 2/2

FILIPPOVICH, Yu. B.

"Connection of the Proteins and Amino Acids of Hemolymph With Synthesis of Silk Proteins in the Organism of the Oak Silkworm." Thesis for degree of Cand. Chemical Sci. Sub 14 Nov 49, Moscow State Pedagogical Inst imeni V. I. Lenin.

Summary 82. 18 Dec 1952, Dissertations Presented For Degrees in Science and Engineering in Moscow in 1949. From Vechernyaya, Moskva, Jan-Dec 1949.

2 of FILIPPOVICH, Yu. B.

Relation between the hemolymph proteins and amino acids and the synthesis of silk proteins in the organism of the silkworm *Antheraea pernyi*. S. Ya. Demchenovskii and Yu. B. Filippovich (Moscow Pedagog. Inst.). *Biohimiya* 13, 437-43 (1970); cf. C.A. 42, 7880c. -The sole source for the synthesis of the silk proteins are the free amino acids present in the hemolymph of the silkworm. The amino acid content is maintained at a definite level by the decompn. of pseudoglobulin. H. Priestley

FILIPPOVICH, YU. B.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Biological Chemistry

(2)
Free amino acids in the hemolymph of the oak silkworm.
Yu. B. Filippovich (N. I. Lenin State Pedagog. Inst.,
Moscow). *Doklady Vsesoyuz. Akad. Sci'shokhos. Nauk im.
V. I. Lenina* 18, No. 9, 33-44 (1953).—By chromatography,
alanine, tyrosine, valine, lysine, threonine, cysteine and (or)
cystine, methionine, arginine, histidine, proline, phenyl-
alanine, and tryptophan were found in the hemolymph of the
oak silkworm. The quantities of tyrosine, alanine, lysine,
and proline vary in hungry and well-fed larvae.
J. B. Jaffe

FILIPPOVICH Yu B

... of proteins and amino acids of the body ...
... protein of the ...
... 1954 No 27908 ...
... of ... in the ... stage the ...
... in the hemolymph increases 2.5-3 times ...
... After chrysalization of the caterpillars ...
... of the hemolymph drops from 7.2 to ...
... Amino N in the hemolymph of caterpillars in the

... 10.1 to 75.2 mg % ...
...
... these amino acids are used in the synthesis ...
... of silk proteins. Their contents in relation to total ...
... amino N in the hemolymph is reduced from 35.2% before ...
... the formation of the cocoon to 29.6% after the cocoon is ...
... formed. Fractionation of the proteins in the hemolymph ...
... with Na_2SO_4 showed that they comprise 3 fractions: pseudo- ...
... globulin 81.6, euglobulin 15.3, and albumin 3.1%. Up to ...
... of the cocoon the quantity of the pseudo- ...
... globulin increases 20 times while the content of euglobulin ...
... does not change materially. The following ...
... in the protein of the hemolymph ...
... 1.3-1.8 60% of ...
... of the total N of the protein, alanine 6.25-8.74, glycine 1.68 ...
... and typtophan 1.44-2.02%. A detailed review ...
... of data on the compn. of the body and protein metab- ...
... in the mulberry and oak silkworm. 125 references

M. Hosh

FILIPPOVICH, Yu.B.

Amino acid content of raw silk thread from the pernyi silkworm
raised on oak and willow leaves. Dokl. Akad. sel'khoz. 23 no.3:
34-39 '58. (MIRA 11:4)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut im. V.I.
Lenina.

(Amino acids) (Silk)

FILIPPOVICH, Yu.B.

Quantitative determination of amino acids by paper chromatography. Uch. zap. MGPI 140:147-212 '58.

Methods for evaluation of the nutritive value of feeds based on their amino acid content. Ibid.:213-221

(MIRA 16:8)

1. Iz laboratorii organicheskoy i biologicheskoy khimii Moskovskogo gosudarstvennogo pedagogicheskogo instituta imeni Lenina.

FILIPPOVICH, Yu.B.; VAYNER, L.I.

Ratio between the weight of the batch of material and the volume of acid during the hydrolysis of proteins in the presence of carbohydrates. Uch. zap. MGPI 140:223-230 '58.
(MIRA 16:8)

1. Iz laboratorii organicheskoy i biologicheskoy khimii Moskovskogo gosudarstvennogo pedagogicheskogo instituta imeni Lenina.

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413120020-8"

AUTHOR: Filippovich, Yu. B.

SOV/156.-58-3-26/52

TITLE: The Identification of Amino Acids by Paper Chromatography
(Identifikatsiya aminokislot khromatografii raspredeleniya na bumage)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 3, pp. 507 - 509 (USSR)

ABSTRACT: Paper chromatography with ascending and descending patterns was used for the identification of amino acids. This modern chromatographic method consists of the following characteristics: By means of a micropipet four standard solutions are applied to the chromatographic paper: 1) Standard solution - a mixture of the amino acids investigated. 2) Standard solution - a mixture of amino acids without the sample of the amino acid to be investigated. 3) Standard solution - the sample of the amino acid to be investigated. 4) Standard solution - a mixture of test amino acids 3 times as concentrated as mixture 1.- with the samples to be investigated. Quinohydrone was used as developer for the amino acids. Employing this method of paper chromatography the strength, concentration and type of amino acid can be determined

The Identification of Amino Acids by Paper
Chromatography

SOV/156-58-3-26/52

without any errors. There are 3 figures and 13 references, 0
of which is Soviet.

ASSOCIATION:

Kafedra organicheskoy i biologicheskoy khimii
Moskovskogo gosudarstvennogo pedagogicheskogo instituta im.V.I.
Lenina (Chair of Organic and Biochemistry at the Moscow State
Pedagogic Institute imeni V.I.Lenin)

SUBMITTED: February 3, 1958

Card 2/2

5(3)

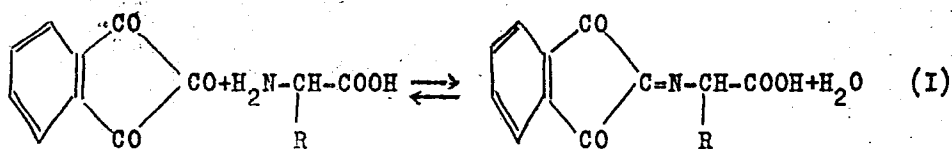
SOV/156-59-1-27/54

AUTHOR: Filippovich, Yu. B.

TITLE: The Chemism of the Reaction of α -Amino Acids With Ninhydrin
(Khimizm reaktsii α -aminokislot s ningidrinom)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1959, Nr 1, pp 110-112 (USSR)

ABSTRACT: The scheme proposed by Ruheman (Refs 1 and 2) is criticized as inadequate. It does not explain all facts. For instance, the formation of ammonia and the reaction between diketo-hydrindol and ammonia is improbable. The following scheme is proposed, which is based on known modes of reaction of the amino acids:



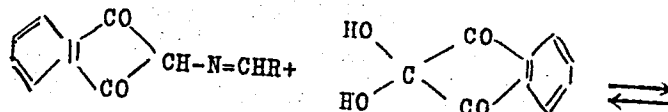
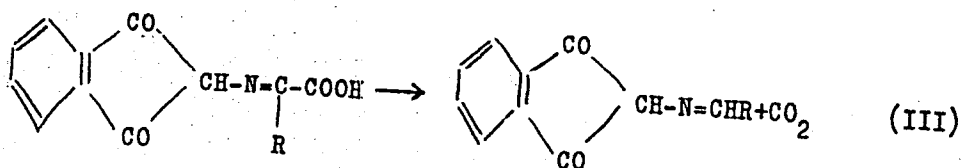
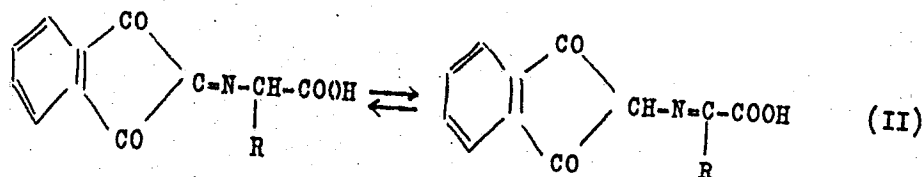
Card 1/4

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413120020-8"

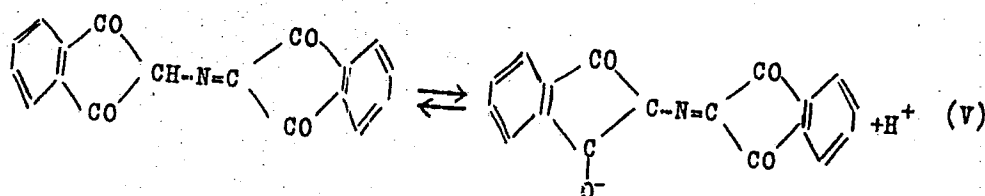
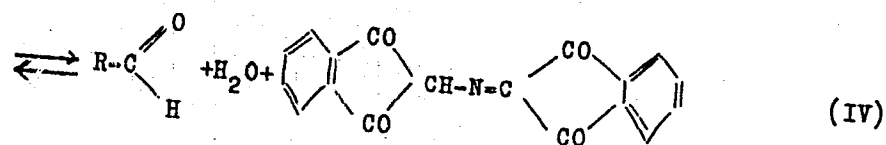
The Chemism of the Reaction of α -Amino Acids With Ninhydrin

SOV/156-59-1-27/54



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The Chemism of the Reaction of α -Amino Acids With Ninhydrin SOV/156-59-1-27/54



Ruheman violet

As hydrindantine is highly reactive with traces of ammonia, ninhydrine is preferred for the quantitative determination of amino acids. There are 9 references, 3 of which are Soviet.

ASSOCIATION: Kafedra organicheskoy i biologicheskoy khimii Moskovskogo gosudarstvennogo pedagogicheskogo instituta imeni V.I. Lenina
(Chair of Organic and Biological Chemistry of Moscow State Institute of Pedagogy imeni V. I. Lenin)

Card 3/4

The Chemism of the Reaction of α -Amino Acids With Ninhydrin SOV/156-59-1-27/54
SUBMITTED: October 17, 1958

Card 4/4

5(3)

AUTHOR:

Filippovich, Yu. B.

SOV/153-2-1-4/25

TITLE:

Features and Extent of the Losses of Amino Acids During the Development of Chromatograms (Kharakter i razmery poter' aminokislot v protsesse proyavleniya khromatogramm)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 1, pp 20-24 (USSR)

ABSTRACT:

Though there are dozens of instructions (Ref 1) for the paper-chromatographical quantitative determination of amino acids, the above-mentioned problem has always been neglected, apart from few exceptions (Refs 2-4). This may, however, entail serious faults. Further, the author enumerates the sources of loss (Refs 3-11) of amino acids. More attention should also be devoted to the possible formation of double stains as a result of the difference in the Rf of the optical antipodes of amino acids (Refs 12-15). This is particularly important since synthetic amino acids are usually employed as indicators and amino acids are partially racemized during the protein hydrolysis. A quantitative determination obviously must afford above all such conditions for the development of the chromatogram which permit maximum reduction of the losses mentioned.

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Feature and Extent of the Losses of Amino Acids
During the Development of Chromatograms

SOV/153-2-1-4/25

In the experimental part the author describes a careful and comprehensive check of the developing agents with respect to the losses under investigation. The figure (on p 22, not numbered) shows a one-dimensional chromatogram of a mixture of eighteen amino acids. The amino acid investigated was thyroxine, developing agents n-butanol, 85 % formic acid, and water (75 : 15 : 15). The following results were obtained: 1) There are different reasons of the losses of amino acids. The losses themselves vary according to conditions and sometimes attain considerable values. 2) Any developing agent is to be checked both as concerns the interaction of its components with the amino acids to be separated and with respect to the compound of the individual amino acids or to the separation of their racemates in optical antipodes. A developing agent must not be used for the above-mentioned purpose as long as it has not stood this test. Table 1 shows the accuracy of the analysis with "reliable" developing agents, and table 2 contains great distribution of errors with the application of "unreliable" developing agents for various amino acids. There are 1 figure, 2 tables, and 16 references, 3 of which are Soviet.

Card 2/3

Features and Extent of the Losses of Amino Acids
During the Development of Chromatograms

SOV/153-2-1-4/25

ASSOCIATION: Moskovskiy gosudarstvennyy pedagogicheskiy institut im.
V. I. Lenina; Kafedra organicheskoy i biologicheskoy khimii
(Moscow State Pedagogical Institute imeni V. I. Lenin;
Chair of Organic and Biological Chemistry)

SUBMITTED: January 9, 1958

Card 3/3

FILIPPOVICH, Yu.B.

Amino acid composition of the silkworm body at different developmental stages. Nauch.dokl.vys.shkoly; biol.nauki no.2:83-86 '59.
(MIRA 12:6)

1. Rekomendovana kafedroy organicheskoy i biologicheskoy khimii Moskovskogo gosudarstvennogo pedagogicheskogo instituta im. V.I. Lenina.

(SILKWORMS) (AMINO ACIDS)

FILIPPOVICH, Yu.B.

Assimilation, breakdown and synthesis of amino acids in the silk-worm organism. Biokhimiia 24 no.5:904-911 S-O '59. (MIRA 13:2)

1. Kafedra organicheskoy i biologicheskoy khimii Gosudarstvennogo pedagogicheskogo instituta im. V.I. Lenina, Moskva.
(AMINO ACIDS metab.)

FILIPPOVICH, Yu.B.

Amino acid concentration in oak and willow leaves at different seasons of the year. Nauch.dokl.vys.shkoly: biol.nauki no.4:175-179 '60. (MIRA.13:11)

1. Rekomendovana kafedroy organicheskoy i biologicheskoy khimii Moskovskogo gosudarstvennogo pedagogicheskogo instituta im. V.I.Lenina.

(AMINO ACIDS)

(OAK)

(WILLOWS)

(LEAVES)

S/075/60/015/003/028/033/XX
B005/B066

AUTHOR: Filippovich, Yu. B.

TITLE: Reproducibility of Results in the Quantitative Determination of Amino Acids by Paper Chromatography

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 3, pp. 374 - 375

TEXT: In the quantitative determination of amino acids by means of paper chromatography the amino acid content in the sample is in most cases determined on the basis of a calibration curve. This method however leads to erroneous results (Ref.1). The author of the present paper availed himself of an abundant numerical material obtained experimentally to study the reproducibility of the results and the possibility of using calibration curves in the quantitative determination of amino acids by paper chromatography. The experimental data were obtained in 1955-1957 in paper chromatographic determinations of the amino acid content in the organism of the yama-mai and characterize the fluctuations of the extinction values of solutions of the copper salt of

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Reproducibility of Results in the
Quantitative Determination of Amino Acids
by Paper Chromatography

S/075/60/015/003/028/033/XX
B005/B066

diketo-hydrindylidene-diketo-hydrindamine, which were obtained from different chromatograms of equal amounts of the corresponding amino acid. These fluctuations were found to be very considerable. The root mean square deviation for alanine, leucine and isoleucine, glutamic acid, arginine, and lysine (obtained from 54 chromatograms each) was 10.5%, for glycine, valine, serine, threonine, histidine, and tyrosine (obtained from 59 chromatograms each) 15.1%, for aspartic acid, proline and phenyl alanine (obtained from 39 chromatograms each) 23.0%, and for cystine and cysteine (obtained from 54 chromatograms) 29.6%. This poor reproducibility of results makes the use of calibration curves for the amino acid determination impossible. If, however, the content of amino acids in the sample is determined at otherwise equal conditions of analysis by comparing with a standard mixture which is developed in the same chromatogram, well reproducible results are obtained. In this case the root mean square deviation obtained from 11 chromatograms each for the results of glycine, alanine, arginine, and tyrosine was 2.2%, and for leucine and isoleucine, serine, threonine, lysine, histidine, proline, and phenyl alanine 5.3%. The considerable fluctuations of the results obtained from

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Reproducibility of Results in the
Quantitative Determination of Amino Acids
by Paper Chromatography

S/075/60/015/003/028/033/XX
B005/B066

different chromatograms are due to the following causes: 1) the inevitable loss of amino acids (by adsorption on the paper, by reaction of amino acids with one another or with components of the developer, by cleavage of racemic amino acids into the optical antipodes, etc) during the development of the chromatograms; 2) the change of the reaction sensitivity of amino acids with ninhydrin, when changing the conditions during color formation (temperature, moisture, paper quality, kind and concentration of the ions present in the paper, quality of ninhydrin, presence of oxidizing or reducing agents in the paper, composition of the surrounding gas atmosphere, degree of the removal of the developer from the paper, and other factors). It is therefore not possible to standardize the conditions of the analysis. Satisfactory reproducibility and sufficient accuracy of results may only be obtained in the quantitative determination of amino acids by means of paper chromatography, if the colors of the mixture to be analyzed and of the standard mixture are determined in one and the same chromatogram. Only in this case the conditions for the sample and standard mixture are really identical in all stages of the analysis. There are 2 references: 1 Soviet and 1 German.

Card 3/4

Reproducibility of Results in the
Quantitative Determination of Amino Acids
by Paper Chromatography

S/075/60/015/003/028/033/XX
B005/B066 ✓

ASSOCIATION: Moskovskiy gosudarstvennyy pedagogicheskiy institut
im. V. I. Lenina (Moscow State Pedagogical Institute
imeni V. I. Lenin)

SUBMITTED: June 30, 1958

Card 4/4